

Model: DA 40 NG



Aircraft Specific Weighting Report

Aircraft Serial Number	40.NC229
Registration	N301MJ
Issue Date	March 20, 2023

Data with reference to the Type Certificate Data Sheet and the Flight Manual

Reference Plane: Vertical plane 2194mm (86.38 in) in front of the leading edge of wing at the root rib.
Horizontal reference plane Wedge 600:31 (2.96°), 2910mm (114.57 in) aft of the step in the cockpit trim.

Equipment list dated March 20, 2023

ORIGINAL

Cause for weighing

Weight and Balance Calculations

Weight Condition:

Include brake fluid, lubricant (1.0 liter / 1.06 qts), coolant, gearbox oil, engine oil (7.0 liter / 7.4 qts)
plus unusable fuel (2.0 US gal / approx. 7.6 liter).

Empty Weight

Support	Gross		Tare		Net Weight	
	kg	lbs	kg	lbs	kg	lbs
Front, G ₂	141.10	311.00	0.00	0.00	141.10	311.00
Main, G _{1LH}	407.30	898.00	0.00	0.00	407.30	898.00
Main, G _{1RH}	404.60	892.00	0.00	0.00	404.60	892.00
EMPTY WEIGHT, G					953.00	2101.00

	Lever Arm	
	mm	in.
X ₂	872.00	34.33
X _{1LH}	2750.00	108.27
X _{1RH}	2730.00	107.48

Empty Weight Centre of Gravity, (X_{CG}):

Empty Weight CG Formula

$$X_{CG} = \frac{((G_{1LH} + G_{1RH}) * X_1) + (G_2 * X_2)}{G_2 + G_{1LH} + G_{1RH}} = \frac{2.464 \text{ m}}{96.99 \text{ in.}}$$

Empty Weight Moment, (M):

Empty Weight Moment Formula

$$M = G * X_{CG} = \frac{2348.19 \text{ kg-m}}{203775.99 \text{ in-lbs}}$$

Maximum Permitted Useful Load:

Maximum Take-off Weight	1310.00 kg	2888.00 lbs
Empty Weight	953.00 kg	2101.00 lbs
Maximum Useful Load	357.00 kg	787.00 lbs

Data to be entered into the Flight Manual:

Empty Weight, G:	Empty Weight Moment, M:
953.00 kg	2348.19 kg-m
2101.00 lbs	203775.99 in-lbs

Place: Date:	D.A.I.C - CYXU March 20, 2023	Authorizing Stamp DA Q 81	Authorizing Signature
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